# User's Manual

# FlexScan® T561

**Color Display Monitor** 



### SAFETY SYMBOLS

This manual uses the safety symbols below. They denote critical information. Please read them carefully.



# WARNING

Failure to abide by the information in a WARNING may result in serious injury and can be life threatening.



# CAUTION

Failure to abide by the information in a CAUTION may result in moderate injury and/or property or product damage.



Indicates a prohibited action.



Indicates to ground for safety.

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As an ENERGY STAR® Partner, Eizo Nanao Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

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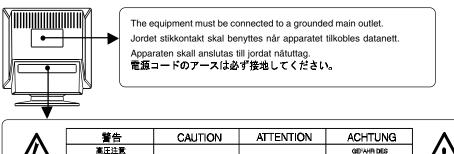
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# **APRECAUTIONS**

### **IMPORTANT!**

- This product has been adjusted specifically for use in the region to which it was originally shipped. The performance of the product, (i.e. picture geometry, picture positioning and color convergence and purity in the case of color monitors) is optimally adjusted to the earth's magnetic field of the specific destination. If operated outside the region to which it was originally shipped, the product may not perform as stated in the specifications.
- To ensure personal safety and proper maintenance. Please read this section and the caution statements on the monitor (refer to the figure below).

### [Location of the Caution Statements]



Λ	警告	CAUTION	ATTENTION	ACHTUNG
4	高圧注意 サービスマン以外の方は裏ぶた をあけないでください。 内部には高電圧部分が数多くあ り、万一さわると危険です。	RISK OF ELECTRIC SHOCK. DO NOT OPENL	RISQUE DE CHOC ELECTRIQUE NE PAS QUVRIR.	GEFAHR DES ELEKTRISCHEN SCHLAGES RÜCKWAND NICHT ENTFERNEN.



# **⚠ WARNING**

- If the monitor begins to emit smoke, smells like something is burning, or makes strange noises, disconnect all power connections immediately and contact your dealer for advice.
  - Attempting to use a malfunctioning monitor can be dangerous.
- Do not dismantle the cabinet or modify the monitor.
   Dismantling the cabinet or modifying the monitor may result in electric shock or burn.
- Refer all servicing to qualified service personnel.
   Do not attempt to service this product yourself as opening or removing
  - Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards.



# **WARNING**

· Keep small objects away from the monitor.

Small objects may accidentally fall through the ventilation slots into the cabinet, leading to fire, shock, or equipment damage.



· Keep liquids away from the monitor.

Spillage into the cabinet may result in fire, electric shock, or equipment damage. If an object or liquid falls/spills into the cabinet, unplug the monitor immediately. Have the unit checked by a qualified service engineer before using it again.



· Place the monitor on a strong, stable surface.

A unit placed on an inadequate surface may fall, resulting in injury or equipment damage. If the monitor falls, disconnect the power immediately and have the unit checked by a qualified service engineer before using it again. Using a monitor after it has been dropped may result in fire or electric shock.



- Set the monitor in an appropriate location.
  - \* Do not install in a dusty or humid environment.
  - \* Do not place in a location where the steam comes directly on the screen.
  - \* Do not place near heat generating devices or a humidifier.



Keep the plastic packing bags away from children and infants.

Plastic bags can be dangerous. To avoid danger of suffocation, keep the bag away from babies and children.



• Keep power terminal covers for the optional *i*·Sound<sup>™</sup> sound unit away from children and infants.

Children and infants may accidentally swallow the covers and choke. If swallowed, consult a doctor immediately.



# • Use the enclosed power cord. If using the power cord other than the enclosed one, use the following cord.

[USA and Canada]

Use a UL LISTED/CSA LABELED or CERTIFIED power cord set meeting the following specifications.

\* Rating: min. 125 V, 10 A \* Length: max. 2.0 m

\* Plug type: NEMA 5-15P, Parallel blade, Grounding type, 125 V, 10 A

\* Type: SVT

[Europe]

Use a proper European standard approved power cord meeting the following specifications.

\* Rating: min. 250 V, 10 A \* Length: max. 2.0 m

\* Type: H05VV-F 3G 1 mm2

Use a plug type approved by the country where you reside. Failure to do so may cause fire or electric shock.

### · To disconnect the power cord, grasp the plug firmly and pull.

Never tug on the cord, doing so may cause damage and could result in fire or electric shock



- Use the correct voltage.
  - \* The monitor is designed for use with a specific voltage only. Connection to a different voltage may cause fire, electric shock, or other damage.
  - \* Do not overload your power circuit, as this may result in fire or electric shock.
  - \* For proper connections of the power cord, be certain to plug the power cord to the provided monitor connector and directly to a wall outlet. By not doing so may result in fire or electric shock.

#### Handle the power cord with care.

- \* Do not place the cord underneath the monitor or other heavy objects.
- \* Do not pull on the cord.
- \* Do not attempt to repair a damaged cord.

If the power cord becomes damaged, stop using it. Use of a damaged cord may result in fire or electric shock.



If it begins to thunder, do not touch the plug, power cord and cable. Touching them may result in electric shock.









# **⚠** CAUTION

- · Handle with care when carrying the monitor.
  - \* Disconnect the power cord, signal cables and remove the optional i·Sound<sup>TM</sup> sound unit (if applicable). Moving the monitor with the cord attached or lifting it by the i·Sound<sup>TM</sup> sound unit is dangerous. It may result in injury or equipment damage.
  - \* Note that the monitor is heavier at the front than at the rear. Do not move it alone. Always work with another person.
  - \* The screen is optically coated to reduce glare. Keep hard objects (such as buttons, tiepins, and other clothing accessories) away from the screen surface to prevent scratches.

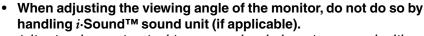




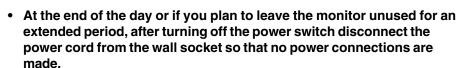
- · Do not block the ventilation slots on the cabinet.
  - \* Do not place books or any other papers on the ventilation slots.
  - \* Do not install the monitor in a closed space.
  - \* Do not use the monitor laying down or upside down.
  - \* Do not remove the tilt-swivel stand.

Using the monitor in this way block the ventilation slots and prevents proper airflow, leading to fire or other damage.





Adjusting the monitor in this way may break the unit or cause bodily injury.









# **CAUTION**

· Do not touch the plug with wet hands.

Touching the plug with wet hands is dangerous and can cause electrical shock.



Use an easily accessible power outlet.

This will ensure that you can disconnect the power quickly in case of a problem.

· Unplug the monitor before cleaning it.

Cleaning the monitor while it is plugged into a power outlet may result in electric shock.

 Never use thinner, benzene, alcohol (ethanol, methanol, or isopropyl alcohol), abrasive cleaners, or other strong solvents, as these may cause damage to the cabinet or CRT.



· Periodically clean the area around the plug.

Buildup of dust, water, or oil on the plug may result in fire.

# 1. INTRODUCTION

Thank you very much for choosing EIZO FlexScan T561.

# 1-1. Features

- High contrast natural flat type CRT.
- Dual inputs with individual color configuration.

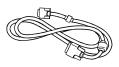
# 1-2. Package Contents

Please contact your local dealer for assistance if any of the listed items are missing or damaged.

Monitor



 Signal Cable (MD-C87/MD-C100)



Power Cord



User's Manual



• EIZO CRT Utility Disk



· Warranty Registration Card

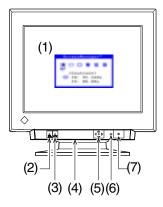


#### NOTE

• Please retain the packing materials for future transference.

# 1-3. Controls & Connectors

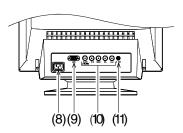
### **Front**



- (1) ScreenManager™
- (2) BNC/D-SUB Selection Button
- (3) AUTO-SIZING Button
- (4) Power Terminal Covers for the Optional i-Sound Sound Unit. (Bottom side)
- (5) QuickSet™ Control Pad (Hereinafter "Control Pad")
- (6) Power Indicator

Indicated color	Power-on status
Green	Power is on (Normal mode)
Flashing Green	Power save mode 1
	Advance notice of monitor's
	off timer (See page 18)
Yellow	Power save mode 2
Flashing Yellow	Power save mode with
	monitor's off timer
	(See page 18)

### Rear



- (7) Power Switch
- (8) Power Connector
- (9) D-Sub Mini 15 Pin Input Connector
- (10) BNC Input Connector
- (11) Maintenance Port

# 2. INSTALLATION

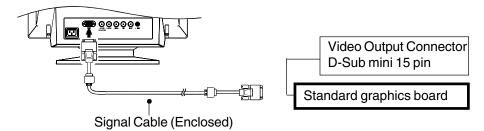
# 2-1. Connecting the monitor to the PC

### NOTE

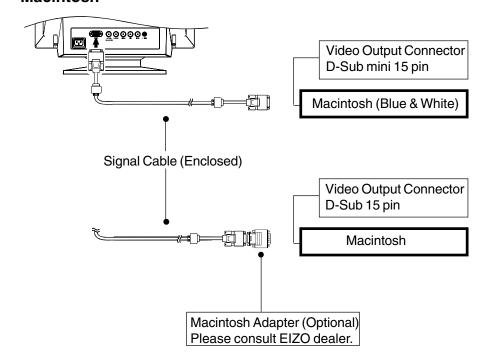
- · Be sure that the power switches of both of the PC and the monitor are OFF.
- 1. Plug the signal cable into the connector at the rear of the monitor and the other end of the cable into the video connector on the PC.

After connecting, secure the connection with the screw-in fasteners.

Standard graphics board



Macintosh



2. Plug the power cord into the power connector at the rear of the monitor. Then plug the other end of the cord into a power outlet.

# **WARNING**

- · The equipment must be connected to a grounded main outlet.
- Use the enclosed power cord. If using the power cord other than the enclosed one, use the following cord.

[USA and Canada]

Use a UL LISTED/CSA LABELED or CERTIFIED power cord set meeting the following specifications:

\* Rating: min. 125 V, 10 A max.2.0 m \* Length:

\* Type: **SVT** 

\* Plug type: NEMA 5-15P, Parallel blade, Grounding type, 125 V, 10 A

#### [Europe]

Use a proper European standard approved power cord meeting the following specifications:

\* Rating: min. 250 V, 10 A \* Length: max. 2.0 m

H05VV-F 3G 1 mm2

Use a plug type approved by the country where you reside.

Failure to do so may cause fire or electric shock.

# **3.** Turn on the monitor first, then the PC.

The monitor's power indicator will light up (green). The monitor will warm up briefly, then display an image. Whenever finishing your operation, turn off the PC and the monitor.

(If an image does not appear, make sure that all connections have been made properly. Refer to the "TROUBLE SHOOTING" (See page 22) for additional advice.)

#### NOTE

Generally, for maximum viewing comfort, position the monitor slightly below eye level. Staring at the monitor for prolonged periods can cause eve strain. Be sure to take adequate rests.

(A 10-minute rest period each hour is suggested.)

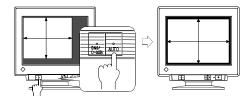


# 2-2. Getting Ready for Operation

Try each setting procedure if necessary in the following cases.

### The display image size and / or position is incorrect

Press the AUTO-SIZING button on the front panel. The AUTO-SIZING function centers the displayed image, aligning the image's borders with respect to the monitor frame. In general, press the AUTO-SIZING button whenever changing the graphics board or the resolution <sup>p.30)</sup>, or when image size and/or position is incorrect. If further adjustment is required, adjust the picture size/position as desired using the ScreenManager (See page 14).



NOTE

• A solid-color screen (i.e. red, green, blue) may appear briefly after pressing the AUTO-SIZING button. This is not a malfunction.

# The displaying area is too large or too small

The following look-up table shows the maximum (non-interlaced) vertical refresh rates for this model with regard to standard resolutions set forth by VESA. The best way to see if the monitor will work with a given resolution and rate, is to compare the vertical refresh rate of the graphics board to the monitor's range. Refer to the graphics board manual for specifications. If the refresh rate is within the specified range of the monitor, it should operate properly.

Horizontal Scan Frequency (kHz)	,				
	640 x 480	800 x 600	1024 x 768	1280 x 1024	1600 x 1200
30-96	160	144	118	89	76

# Using the monitor with Windows® 95/98/2000

A monitor information file is contained in the EIZO CRT Utility Disk included with the monitor. It includes all the required information for best operation with Windows 95/98/2000. Please install the enclosed utility and select your model name from the monitor list in Windows 95/98/2000. For installation procedure, please read the readme.txt file in the utility disk.

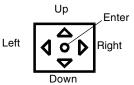
# 3. SCREEN ADJUSTMENT

#### NOTE

 Allow the monitor to stabilize for at least 30 minutes before making image adjustments.

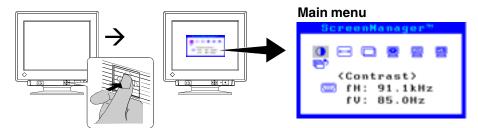
# 3-1. How to use the ScreenManager

Use the control pad on the front panel. The control pad can be pressed in 5 directions, "Enter", "Up", "Down", "Left" and "Right".



# 1. Entering the ScreenManager.

Display the ScreenManager Main menu by pressing the "Enter" of the control pad.



Main menu displays the current connector type and frequency of the input signal.

# **2.** Making Adjustments and Settings.

- (1) Select the desired icon using the arrow keys.
- (2) Press the Enter key to display each adjustment/setting menu.
- (3) Use the control pad to make the required adjustments and settings.
- (4) To save the settings and return to the Main menu, press the Enter key.

# **3.** Exiting the ScreenManager.

To exit the ScreenManager, select the "Exit" and press the Enter key. Pushing the down arrow key twice goes to the "Exit" position instantly.

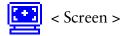
#### NOTE

 Leaving the ScreenManager idle for 45 seconds or more will turn the adjustment off automatically without saving.

# 3-2. Adjustments and Settings

Main menu Sub menu		Adjustments and Settings	See page
Contrast	<u> </u>	Screen contrast and brightness*	_
Size —		Screen size	_
Position	<u> </u>	Screen position	_
Screen	Side Pin.	Side pin balance	
	Trapezoidal	Distortion	
	<u> </u>	Inclination	
	Convergence _	Convergence p.29)	
	Moiré Reduction	Moiré <sup>p.29)</sup>	
	Fine Contrast	To brighten the photo or picture image.	p.16
	Signal Filter	To decrease the slightly shadowed images or characters.	p.16
	Video Level	To set the video level.	p.16
Color	"Standard"	To set the color temperature p.29).	p.17
	"Custom"	To adjust each color, (Red, Green and Blue).	p.17
Others PowerManager		To set the power save. (With PC's power saving system)	p.18
Off Timer		To set the power save. (With Monitor's Off timer)	p.18
📆 Degauss		To degauss P29).	p.19
	Button Setting	To customize the button function.	p.19
	Menu Position	To adjust the menu position of the ScreenManager.	p.19
	Input Signal	To select the input signal of Automatic or Manual.	p.21
	Reset	To return to the factory setting.	p.19

<sup>\*</sup> When a black background (e.g. DOS text) is used, setting the brightness at its maximum is recommended because a dark setting will result in eye strain due to high character contrast.



### · To brighten the photo or picture image





Select "Picture Mode".

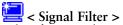
- Select "Text Mode" to display the text on word processor or calculating software.
- The AUTO-SIZING button can be customized to active this function easily (See page 19).

### To decrease a slightly shadowed image or character

When the characteristics of the graphics board does not match those of the monitor, the characters and images displayed may have a slight shadow on their right side.







Select from mode 1 or 2, whichever displays the image better in the Signal Filter menu.

### · To set the video level

If the setting level is improper, the screen may appear too bright or too dark.



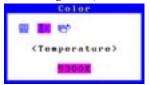


Set the video level to adapt to the output level of the PC or the graphics board.



### To set the color temperature

Temperature can be set from 4,000 K to 10,000 K, in 500 K increments. (Including the 9,300 K default setting.)



\*\*Elect "Color temperature".

# • To adjust each color, (Red, Green and Blue)

Adjust the "Cutoff" p.29) and "Gain" p.29), and make appropriate color tone.



"Custom" mode

- (1) First, set the monitor to maximum contrast and brightness.
- (2) K < Temperature>
  Set the color temperature that is close to the desired color
- (3) Cut off >

Adjust each color to become a uniform black level by using the "Cutoff" function.

(4) **Gain** >

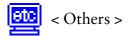
Adjust each color to the desired white level by using the "Gain" function.

(5) **Save** >

Select "Save" and then press the Enter key. The adjustment data will be lost, if the monitor is turned off without saving.

\* The values shown in percentages (%) for both the Cutoff and Gain are available only as a reference tool.

<sup>&</sup>quot;Standard" mode



### To set the power save

There are two power save settings choose the setting which matches your environment.

### NOTE

• Do your part to conserve energy, turn off the monitor when you are finished using it. Complete energy use can only be accomplished by disconnecting the monitor's power supply cord from the plug receptacle.

### 1. With PC's power saving system (VESA DPMS p.30)

The monitor detects the signal from the PC and executes the power saving accordingly, as shown in the table below.





Select "On".

Operate the mouse or keyboard to return to a normal

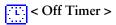
#### [Power saving system]

PC Signal	Screen	LED	Power consumption
ON	Operation	Green	110W (normal)
STAND-BY	Blank screen	Green	80% of normal
SUSPEND	Power save (Mode 1)	Flashing green	Less than 10 W
OFF	Power save (Mode 2)	Yellow	Less than 3 W

#### 2. With Monitor's off timer system

Without the PC's power saving system, the off timer allows the monitor to Enter a power save mode after a predetermined amount of time has lapsed.





Select "Enable" and press the left/right keys on the control pad to set the "On period". (1 to 23 hours)

Press any direction of the control pad or to turn the power off then on again to retun to a normal screen.

### [Power saving system]

Time	Screen	LED	Power consumption
On period (1-23)	Operation	Green	110 W (normal)
Last 15 min. in			
"On period"	Advance notice*	Flashing green	110W (normal)
"On period" expired	Power save mode	Flashing yellow	Less than 3 W

<sup>\*</sup> To delay entering the power save mode, press any direction of the control pad during the advance notice mode.

## · To degauss the monitor





Press the center of the control pad.

- \* The degauss circuitry takes about 30 minutes to regain maximum power following degaussing.
- To customize the button function (Auto sizing or Fine Contrast)

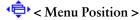




Select "Auto Sizing" (Auto sizing function <See page 13>) or "Fine Contrast" (Brighten the photo or picture image <See page 16>).

• To adjust the menu position of the ScreenManager





Adjust the menu position as desired by using the control pad.

· To return to the factory default setting





Default settings are as follows.

Contrast and Brightness.	< Contrast >	100% / 50%
Moiré.	< Moiré Reduction>	0%
Brighten the photo or picture image.	< Fine Contrast >	Text Mode
Decrease a slightly shadowed image		
or character.	< Signal Filter>	Mode 1
Set the video level.	< Video Level >	0.7V
Color temperarure.	< Color >	Standard /9,300K
Power save with PC's power saving		
system.	< PowerManager>	On
Power save with Monitor's off timer.	< Off Timer >	Disable
Customize the button function.	< Button Setting>	Auto Sizing
Select the input signal.	< Input Signal >	Auto

# 3-3. Special Function

## **Shortcut Keys**

The brightness and contrast can be adjusted by pressing the Up, Down, Left and Right keys of the control pad directly. Press the center of the control pad to save and exit the settings after the adjustment.

### **Adjustment Lock**

Use the "Adjustment Lock" function, to prevent any accidental changes.

Locked function	<ul><li>Adjustments and settings in the ScreenManager.</li><li>AUTO-SIZING button.</li></ul>
Unlocked function	<ul> <li>Adjustment of contrast and brightness by the shortcut keys.</li> <li>BNC/D-Sub Selection button.</li> </ul>

#### • To lock

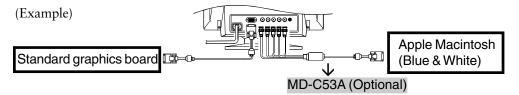
Press on the AUTO-SIZING button while switching on the monitor's power.

#### • To unlock

Switch off the monitor's power, then hold down the AUTO-SIZING button once again and turn the power back on.

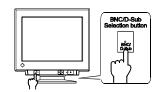
# 4. CONNECTING TWO PCs TO THE MONITOR

Two PCs can be connected to the T561 through the BNC/D-Sub input connections on the back of the monitor.



## Selecting the active input

The BNC/D-Sub selection button on the front panel can be used to select either the BNC or D-Sub connection as the active input. Every time the button is pressed, the input changes.



## Automatically select the input signal for screen

### **Procedure**



< Others > menu / \*\*\* < Input Signal> Select "Auto".

Auto	The monitor will automatically detect the inputted signal of either the BNC or D-SUB connection for display. When turning on the monitor, the first inputted signal will be displayed.
Manual	Select the active input by pressing the BNC/D-SUB selection button.

# Adjustment data can be saved for both PCs

The following adjustment and setting data can be saved for each input signal (BNC/D-Sub).

Contrast and Brightness.	< Contrast >	p.15
Brighten the photo or picture image.	< Fine Contrast >	p.16
Decrease a slightly shadowed image		
or character.	< Signal Filter>	p.16
Set the video level.	< Video Level >	p.16
Color temperarure.	Color Mode "Standard"	p.17
Adjust each color.	Color Mode "Custom"	p.17

# 5. TROUBLESHOOTING

If a problem persists even after applying the suggested remedies, contact an EIZO dealer.

Problems	Points to check with possible solutions
No picture     Indicator status: Off	<ul> <li>□ Check that the power cord is correctly connected.</li> <li>□ If the problem persists, turn off the monitor power for a few minutes, then turn it back on and try again.</li> </ul>
<ul> <li>Indicator status: Green</li> <li>Indicator status:         <ul> <li>Flashing Green /</li> <li>Yellow</li> </ul> </li> <li>Indicator status:         <ul> <li>Flashing Yellow</li> </ul> </li> </ul>	<ul> <li>□ Check the "Contrast and Brightness" function in the ScreenManager "Main" menu.</li> <li>□ Try pressing a key on the keyboard, or clicking the mouse. (p.18)</li> <li>□ Try pressing the AUTO-SIZING Button or control pad or turn the monitor off and then on.(p.18)</li> </ul>
2. Following messages appear.	These messages appear when the signal is not inputted correctly, even if the monitor functions properly.  Error messages shown below will remain on the screen for 30 seconds.
<ul> <li>"No signal detected" error message appears.</li> </ul>	<ul> <li>□ When the image is displayed correctly after a short time, it is not a monitor's problem.</li> <li>(Some PC does not output the signal soon after</li> </ul>
Signal Check  fH: 0.0kHz fU: 0.0Hz	powering on.)  □ Check that the PC is turned ON.  □ Check that the signal cable is properly connected to the PC or graphics board.  □ Switch the signal input by pressing the BNC/D-Sub selection button on the front control panel.
"Out of range" error message appears.     Whenever an error signal message appears, the signal frequency will be displayed in red.     (Example)	☐ Use the graphics board's utility software to change the frequency setting. (Refer to the manual of the graphics board.)

Problems		Points to check with possible solutions			
	e image vibrates on screen.	<ul> <li>□ Check that the signal cable is properly connected to the PC or graphics board.</li> <li>□ The monitor may be located close to a device that is generating a magnetic field. Such devices include speakers (other than the EIZO optional <i>i</i>·Sound speaker), electric motors, high-voltage cables, and other monitors. It may be solved by turning off or moving the interfering device, or by relocating the monitor.</li> <li>□ Use of the "Moiré" adjustment may cause a slight vibration. To eliminate the vibration, set the adjustment level to lower percentage or 0%. (p.15)</li> <li>□ If the volume level of the EIZO optional <i>i</i>·Sound speaker is too high, it may, in some cases, cause a slight vibration. To eliminate, turn down the volume of the speaker.</li> </ul>			
4. The	e image is flickering.	☐ Flicker will occur with interlaced scanning, or non-interlaced scanning with a low refresh rate. All EIZO monitors are capable of reproducing high refresh rates for non-interlaced scanning. If a problem occurs when using a non-interlaced signal, try adjusting the graphics board to increase the refresh rate (if possible). Refer to the graphics board manual for information.			
5. Mo	oiré patterns appear.	<ul> <li>Reduce the moiré using the "Moiré" function in the ScreenManager "Screen" menu. (p.15)</li> <li>Change the horizontal and vertical size of the display area.</li> <li>Change the selected desktop or wallpaper pattern to any solid color pattern. For detailed information on how to change these patterns, refer to the PC and operating system manual.</li> </ul>			
ima	e characters and ages have a slight dow on their right e.	<ul> <li>□ Change the mode of "Signal Filter" function in the ScreenManager "Screen" menu. (p.16)</li> <li>□ Change the refresh rate. Refer to the PC and graphics board manual for information.</li> </ul>			

Problems	Points to check with possible solutions
7. The entire screen appears too dark or bright.	□ Adjust the "Contrast and Brightness" function in the ScreenManager "Main" menu. (p.15) □ Some signal timing can be the cause of this problem. To correct this, turn off the monitor, then hold down the "down" arrow key while turning on the monitor again. This will change the signal timing and brighten the screen. If the above operation is repeated, the screen becomes dark again. □ Video signal level from the PC may not match the monitor. Set the video signal level using the ScreenManager. (p.16)
<ul> <li>8. Color is abnormal</li> <li>The entire screen appears bluish or reddish.</li> <li>Color purity is not uniform.</li> <li>Misconvergence of colors(red, green, blue).</li> </ul>	<ul> <li>□ When the monitor is not fully warmed up, the screen may look slightly colored, e.g. bluish or reddish. This phenomenon is due to the unstableness of the electron gun during its warm-up period. Wait for about 30 minutes until the monitor stabilizes in order to gain its proper color.</li> <li>□ Adjust the "Degauss" function in the ScreenManager "Others" menu. (p.19)</li> <li>□ Return the factory default setting by using "Reset" function in the ScreenManager "Others" menu. Note that all the ScreenManager parameters will be returned to the factory default setting. (p.19)</li> <li>□ Try adjusting the "Convergence" in the ScreenManager "Screen" menu. (p.15) The "convergence" function adjusts the entire screen. It is not possible to limit adjustment to specific screen areas.</li> </ul>
9. AUTO-SIZING button does not work properly.	<ul> <li>□ The Auto sizing function is intended for use on the Macintosh and on IBM compatibles running Windows. It may not work properly if either of the following cases.</li> <li>• You are running an AT-compatible PC on MS-DOS (Not windows).</li> <li>• The background color for the "wall paper" or "desktop" pattern is set to black.</li> <li>□ Some signals from graphics board may not function properly.</li> </ul>

### **Problems** Points to check with possible solutions 10. ScreenManager/AUTO-☐ The Adjustment Lock is probably on. To unlock: Turn off the monitor power, then hold SIZING button does not down the AUTO-SIZING button once again and turn operate. the power back on. (p.20) ☐ These are damper wires. 11. Two horizontal hairlines are visible on the screen. [ About Damper wires] Damper wires are used to support the CRT's aperture grille, and are visible as thin dark lines across the screen. All EIZO aperture grille type CRTs include two such horizontal wires. The aperture grille itself is a grid of taut metal Dampening Wires filaments that spans the entire screen from top to bottom. 12. Faint black vertical lines ☐ The aperture grille may be misaligned. Shock or are visible on the screen. vibration during transport may, in some cases, cause the aperture grille to fall out of alignment. The problem will appear as one or more faint black lines across the screen. If this problem occurs, it may be solved by: Vis-alignment of 1. Degaussing the screen. 2. Lightly tapping (do not hit) the side of the monitor. If neither of these methods works, try executing the following procedure. 1. Display a bright white field over the area where the black line(s) appear, with a black field over the unaffected areas. (Do this by opening a bright-white window on top of a black desktop or wallpaper background. Position the window so that it just covers the area of misalignment.) 2. Set brightness and contrast to maximum values, and keep the display ON until the problem is corrected. Try tapping the side of the display lightly to help expedite realignment. The white field will heat up the misaligned area of the grille, returning it to proper alignment.

# **CLEANING**

Periodic cleaning is recommended to keep the monitor looking new and to prolong its operational lifetime. Clean the cabinet and CRT areas as follows:

# **WARNING**

Keep liquids away from the monitor.

Spillage into the cabinet may result in fire, electric shock, or equipment damage. If an object or liquid falls/spills into the cabinet, unplug the monitor immediately. Have the unit checked by a qualified service engineer before using it again. Using the monitor in this condition could cause serious injury or equipment damage.



# CAUTION

- To ensure safety, always unplug the monitor before cleaning it. Failure to do so may result in electric shock.
- Periodically clean the area around the plug. Buildup of dust, water, or oil on the plug may result in fire.
- · Never use thinner, benzene, alcohol (ethanol, methanol, or isopropyl alcohol), abrasive cleaners, or other strong solvents, as these may cause damage to the cabinet or CRT.



#### Cabinet

To remove stains, wipe the cabinet with a soft, lightly moistened cloth using a mild detergent. Do not spray wax or cleaner directly onto the cabinet.

#### **CRT Surface**

The CRT surface can be cleaned with a soft cloth, such as cotton or lens paper. If necessary, stubborn stains can be removed by moistening part of a cloth with water to enhance its cleaning power.

# 7. SPECIFICATIONS

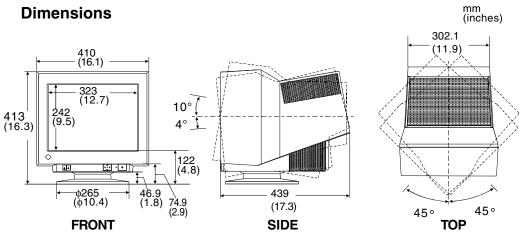
CRT		45 cm (17 inch) class, 90° deflection Tension Mask with			
CICI		Anti- Reflective SuperErgoCoat®			
CRT AG Pitch		0.25 mm			
Scan Frequency	Horizontal	30 kHz-96 kHz (Automatic)			
Scan Frequency	Vertical	50 Hz-160 Hz (Automatic)			
Recommended F	<u> </u>	1280 dots x 1024 lines			
Max. Active Dis		323 mm (H) x 242 mm (V) (12.7" (H) x 9.5" (V))			
Wiax. Active Dis	spiay Mica	(Viewable image size: 403 mm (15.8"))			
Power Supply		100-120/220-240 VAC±10%, 50/60 Hz, 1.3 A/0.65 A			
Power Consump	tion	Normal/Max.: 110 W/130 W**			
1 ower consump	tion	(**with EIZO optional speaker attached)			
		PowerManager Mode 1: Less than 10 W			
		PowerManager Mode 2: Less than 3 W			
Input Connector		D-Sub mini 15-pin and BNC × 5 (Switchable)			
Input Signal	Sync	Separate, TTL, Positive/Negative			
Imput oignut	o y ne	Composite, TTL, Positive/Negative			
		• Sync on Green, 0.3 Vp-p, Negative			
Video		• Analog 0.7 Vp-p/75 $\Omega$ , Positive			
Signal registration		20 signals (Factory preset 2 modes)			
Plug & Play		VESA DDC 2B			
Dimensions		410 mm (W) x 413 mm (H) x 439 mm (D)			
		(16.1" (W) x 16.3" (H) x 17.3" (D))			
Weight		19.3 kg (42.5 lbs.)			
Temperature		operating: 0°C to 35°C (32°F to 95°F)			
F		storage: -20°C to 60°C (-4°F to 140°F)			
Humidity		30% to 80% R.H. Non-condensing			
Certifications and Standards					
100-120 VAC		UL/C-UL, FCC-B, DHHS, TCO'99, EPA ENERGY			
		STAR® Program			
220-240 VAC		CE, CB, TÜV Rheinland/GS, TCO'99, EPA ENERGY			
		STAR® Program, TÜV Eco Circle 2000			

<sup>\*</sup> Display size can be set by the user through microprocessor control panel. The actual size displayed can be dependent on the graphics board or PC utilized.

# **Preset Timing**

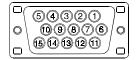
	Resolution	Freque fH(kHz)	encies fV(Hz)	Interlace	Sync Polarity	Video Signal Level
VGA(text)	720 x 400	31.47	59.94	Non	H./Negative V./Positive	0.7 V(p-p)/75 Ω
VESA	1280 x 1024	91.15	85.02	Non	H./Positive V./Positive	0.7 V(p-p)/75 Ω

## **Dimensions**



# **Pin Assignment**

D-Sub mini 15 pin connector



No.	Signal	No.	Signal
1	Red Video	8	Blue ground
2	Green Video /	9	No pin
	Green composite sync	10	Ground
3	Blue video	11	(Shorted)
4	Ground	12	Data (SD)
5	No pin	13	H. Sync / H/V Composite sync
6	Red gound	14	V. Sync
7	Green ground	15	Clock (SCL)

### \* BNC Connector

H.SYNC (H.V.SYNC)	V.SYNC	GREEN	RED	

BLUE

Connector Input signal	H. Sync	V. Sync	Green	Red	Blue
Separate sync	H. Sync	V. Sync	Green	Red	Blue
Composite sync	H/V composite sync	N/A	Green	Red	Blue
Sync on green	N/A	N/A	Green composite sync	Red	Blue

# 8. GLOSSARY

### **Color Temperature**

Color temperature is a method to measure the white color tone, generally indicated in degrees Kelvin. At high temperatures the white tone appears somewhat blue, while at lower temperatures it appears somewhat red. Computer monitors generally give best performance at high temperature settings.

5,000K: Often used in printing industry. 6,500K: Good for video-image display.

9,300K: Default setting for your EIZO monitor.

### Convergence

Convergence is the monitor's ability to precisely illuminate specific phosphors and line them up properly in order to produce pure color.

### **Cutoff and Gain**

Monitors use red, green and blue (R, G, and B) to convey color information. They use an additive method to combine different amounts of the primary colors to produce a desired color. In other words, monitors start with no light (black) and add percentages of red, green and blue to make colors. White is usually produced by adding the same amount of all three colors, where black is usually produced by adding no color. However, colors are not only determined by the balance but also the intensities of R, G, and B (how bright they are) which we call Gain, and the saturation of R, G and B (how vivid or dull they are) which we call Cutoff.

# Degaussing

"Degaussing" refers to the process of removing magnetic-field effects from the monitor. Operation of the monitor within a magnetic field may adversely effect color purity. Degaussing can be used to correct the problem.

### Moiré

Moiré refers to an interference pattern of dark wavy lines on the screen. It is not a defect, but rather an interference phenomenon caused by the relationship between the phosphor layout and the imaging signal. Moiré is often an indication of a good focus level. Moiré is particularly noticeable when using a light-gray or every-otherdot pattern background. Although moiré can not be eliminated, it can be reduced with the moiré reduction feature.

#### Resolution

Resolution is expressed as the number of dots (pixels) displayed on the screen. A larger number of dots produces a more sharply defined (a higher-resolution) image. Notes that for a given screen size the dot size decreases as the number of dots increases: a 640 x 480 (dot x line) resolution uses larger pixels than a 1024 X 768 resolution. The display size of a given font therefore varies according to the resolution. Higher resolutions allow you to display more information on the screen.

### **VESA DPMS**

The acronym VESA stands for "Video Electronics Standards Association," and DPMS stands for "Display Power Management Signaling." DPMS is a communication standard that PCs and graphics boards use to implement power savings on the monitor side.

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MEMO



### Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

#### What does labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Below you will find a brief summary of the environmental requirements met by this product.

The complete environmental criteria document may be ordered from:

TCO Development SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: http://www.tco-info.com/

#### **Environmental requirements**

#### Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

#### Cadmium\*\*

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

### Mercury\*\*

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit.

#### CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

#### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

- \* Bio-accumulative is defined as substances which accumulate within living organisms.
- \*\* Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

# For U.S.A, Canada, etc. (rated 100-120 Vac) Only

# FCC Declaration of Conformity

We, the Responsible Party <u>EIZO NANAO TECHNOLOGIES INC.</u>

5710 Warland Drive, Cypress, CA 90630

Phone: (562) 431-5011

declare that the product Trade name: EIZO

Model: FlexScan T561

is in conformity with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provid reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- \*Reorient or relocate the receiving antenna.
- \*Increase the separation between the equipment and receiver.
- \*Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- \*Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Note

Use the attached specified cable below or EIZO signal cable with this monitor so as to keep interference within the limits of a Class B digital device.

- -AC Cord
- -Shielded Signal Cable (D-SUB mini 15 pin D-SUB mini 15 pin, the enclosed signal cable)

## Canadian Notice

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de le classe B est comforme à la norme NMB-003 du Canada.

#### Hinweis zur Ergonomie:

Dieser Monitor erfüllt die Anforderungen an die Ergonomie nach EK1/59-98, EK1/60-98 mit dem Videosignal, 1280 Punkte x 1024 Zeilen, RGB analog, 0,7 Vp-p und mindestens 85,0 Hz Bildwiederholfrequenz, non interlaced.

Weiterhin wird aus ergonomischen Gründen empfohlen, die Grundfarbe Blau nicht auf dunklem Untergrund zu verwenden (schlechte Erkennbarkeit, Augenbelastung bei zu geringem Zeichenkontrast.)

#### **PTB Hinweis**

Eigensichere Kathodestranlröhre nach Anlage III Röntgenverordnung. Die in diesem Geraet entstehende Röntgenstrahlung ist durch die eigensichere Kathodenstrahlroehre ausreichend abgeschirmt.

#### Recycle Auskunft

Die Rücknahme dieses Produktes nach Nutzungsende übernimmt EIZO in Deutschland zusammen mit dem Partner von Roll MBB Recycling GmbH. Dort werden die Geräte in ihre Bestandteile zerlegt, die dann der Wiederverwertung zugeführt werden. Um einen Abholtermin zu vereinbaren und die aktuellen Kosten zu erfahren, benutzen Sie bitte folgende Rufnummer: 02153-73 35 00. Weitere Informationen finden Sie auch unter der Internet-Adresse: www.eizo.de.

#### Hinweis

Die Bildröhre dieses Monitors ist frei von Cadmium.